



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,204	12/20/2000	Glen Fox	FUJ 00-01013RAM	7135
7590	08/06/2004		EXAMINER	
William J. KUBIDA, Esq. Hogan & Hartson, LLP Suite 1500 1200 17th Street Denver, CO 80202			NGUYEN, KHIEM D	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)
	09/742,204	FOX ET AL.
	Examiner	Art Unit
	Khiem D Nguyen	2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 July 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) The period for reply expires 4 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. The proposed amendment(s) will not be entered because:
 - (a) they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) they raise the issue of new matter (see Note below);
 - (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. Applicant's reply has overcome the following rejection(s): _____.
4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.

Claim(s) objected to: none.

Claim(s) rejected: 1-10, 12, 14-17, 19, 20, 22, 24 and 27.

Claim(s) withdrawn from consideration: none.

8. The proposed drawing correction filed on _____ is a) approved or b) disapproved by the Examiner.
9. Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.
10. Other: _____.


W. DAVID COLEMAN
PRIMARY EXAMINER

Continuation of 5. does NOT place the application in condition for allowance because: In response to Applicants' argument that the references Fox et al. and Michizuki et al. are not combinable since there is no suggestion in the references for the hypothesized combination, and further, if the references are combined they do not provide the claimed method, Examiner respectfully disagrees. Fox discloses annealing the layer of the ferroelectric dielectric material with a second anneal (col. 3, lines 3-21, Fox) at a second temperature (700-750 degrees C) higher than the first temperature (500-650 degrees C). This process inherently changing the layer of ferroelectric material into grains having a columnar structures. Although, Fox does not explicitly disclose that this process is being done after the step of deposition of an electrically conductive top electrode layer as cited in the Applicants' claimed invention. The secondary reference, Mochizuki et al., disclose providing an electrically conductive bottom electrode layer 17, depositing a layer of ferroelectric material 18, annealing the layer of ferroelectric materail (col. 34, lines 35-39, Mochizuki), depositing an electrically conductive top electrode layer 19, subsequently, annealing the layer of ferroelectric material with a second anneal (RTA) (col. 34, lines 30-51 and FIG. 24, Mochizuki). Since both Fox and Mochizuki inventions are related to method of making ferroelectric capacitor and that Mochizuki clearly teaches a second anneal process is being performed after the step of deposition of an electrically conductive top electrode, the Fox and Mochizuki references are combinable to yield the Applicants' claimed invention in order to prevent deterioration in the characteristics of a ferroelectric capacitor and enabling process integration when a ferroelectric memory cell is manufactured (col. 6, lines 14-21, Mochizuki). For these reasons, Examiner holds the rejection proper.